Robert C. Colwell, Reg. No. 27,431   (650) 326-2400

Applicant: Satoshi OSHIMA, *et al.*

Title: Method for Updating Security Information, Client, Server...

Atty Docket No. 16869K-092500US

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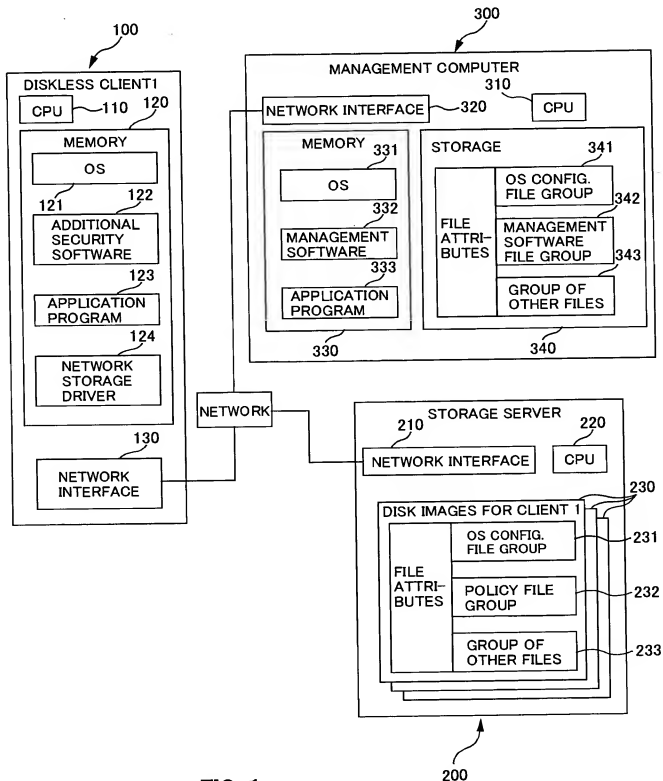
FIG. 1

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FILE ATTRIBUTES

FILE NAME	PATH NAME	DATE			OWNER NAME	GROUP NAME	OWNER			GROUP			OUTSIDE			AT
		CREATED	ALTERED	REFEREN-CED			READ	WRITE	IMPLEMEN-TATION	READ	WRITE	IMPLEMEN-TATION	READ	WRITE	IMPLEMEN-TATION	
test.txt	¥tmp¥	2000/2/3	2001/3/4	2001/4/5	usera	groupa	PER-MITTED	PER-MITTED	NOT PERMITTED	PER-MITTED	NOT PER-MITTED	NOT PERMITTED	PER-MITTED	NOT PER-MITTED	NOT PERMITTED	15
foo.doc	¥sys¥	2002/1/1	2002/1/1	2002/5/6	root	root	PER-MITTED	NOT PER-MITTED	NOT PERMITTED	NOT PER-MITTED	NOT PER-MITTED	PERMITTED	NOT PER-MITTED	NOT PER-MITTED	NOT PERMITTED	23
bar.exe	¥bin¥	2000/2/3	2000/2/3/	2002/5/6	deamon	deamon	PER-MITTED	PER-MITTED	PERMITTED	NOT PER-MITTED	NOT PER-MITTED	PERMITTED	PER-MITTED	NOT PER-MITTED	PERMITTED	48
...																

FIG. 2

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ALLOCATION TABLE (4–8 BYTES/CELL)

	0	1	2	3	4	5	6	7	8	9
0			5			8			63	
10						16	17	18	19	20
20	0			24	25	30				
30	31	32	33	0						
40									2	
50										
60				67				0		
...										

FIG. 3

CLUSTER (4–32 BYTES/CELL)

	0	1	2	3	4	5	6	7	8	9
0			*			*			*	
10						*	*	*	*	*
20	*			*	*	*				
30	*	*	*	*						
40									*	
50										
60				*				*		
...										

FIG. 4

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STORAGE SERVER 200 | DISKLESS CLIENT 100

S200

START POLICY
UPDATING FUNCTION

S210

CONCLUDE POLICY
UPDATING FUNCTION

S220

START PC

S230

START OS

S240

START VARIOUS
DEVICES/SERVICES

IMPLEMENT
VARIOUS
PROCESSES

FIG. 5

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PROCESSING BY OS | OPERATION BY SECURITY SOFTWARE

FIG. 6

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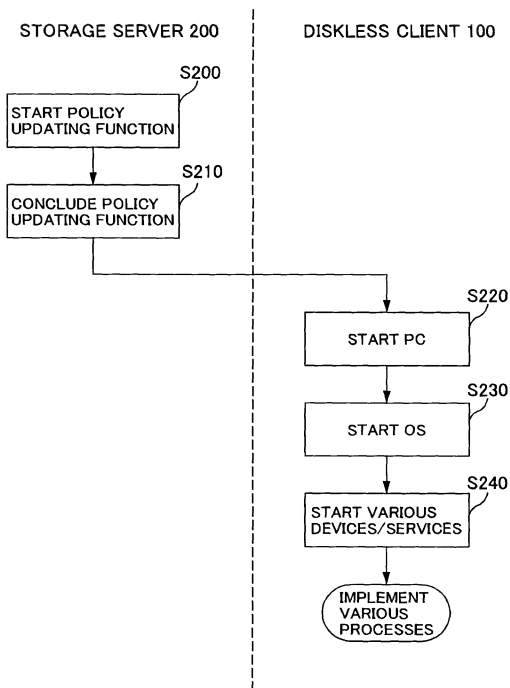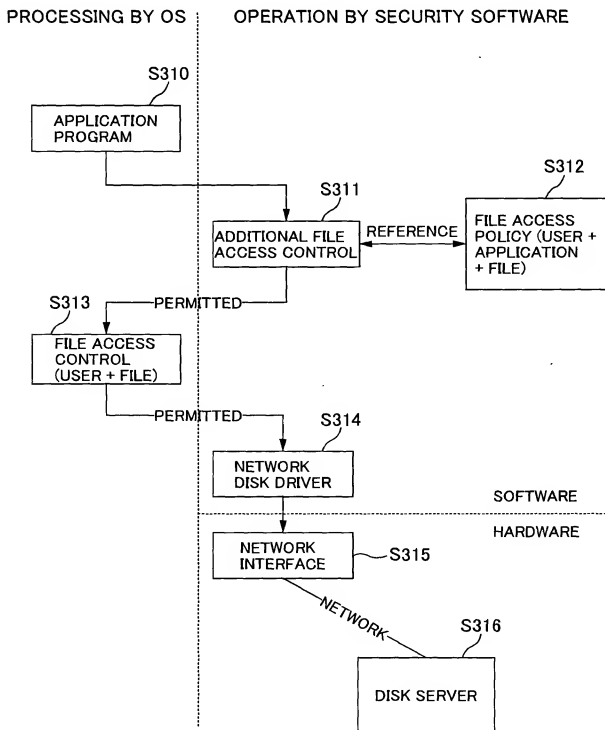Atty Dock t No. 16869K-092500US

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COMPUTER

CPU

NETWORK INTERFACE

MEMORY

OS

ADDITIONAL
SECURITY
SOFTWARE

APPLICATION
PROGRAM

STORAGE

FILE
ATTRI-
BUTES

OS CONFIG.
FILE GROUP

POLICY
FILE GROUP

GROUP OF
OTHER FILES

FIG. 7

APPLICATION
PROGRAM — S10

FILE ACCESS CONTROL
(USER + FILE) — S20

S30 PERMITTED ——PERMITTED—— S50

BUILT-IN
STORAGE DRIVER

NETWORK DRIVER

SOFTWARE

HARDWARE

BUILT-IN STORAGE

NETWORK CARD

S40

S60

NETWORK

S70

STORAGE SERVER

FIG. 8

Robert C. Colwell, Reg. No. 27,431   (650) 326-2400
Applicant: Satoshi OSHIMA, *et al.*
Title: Method for Updating Security Information, Client, Server...
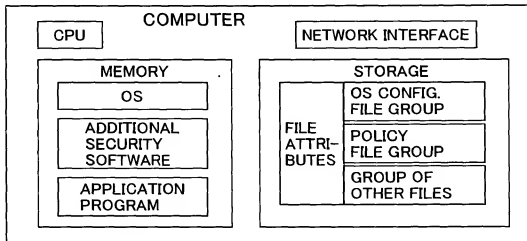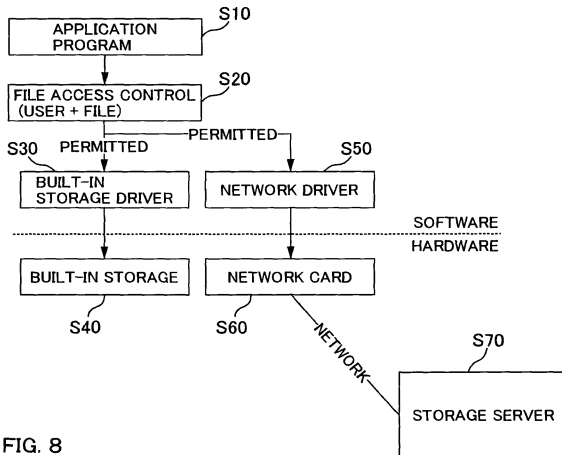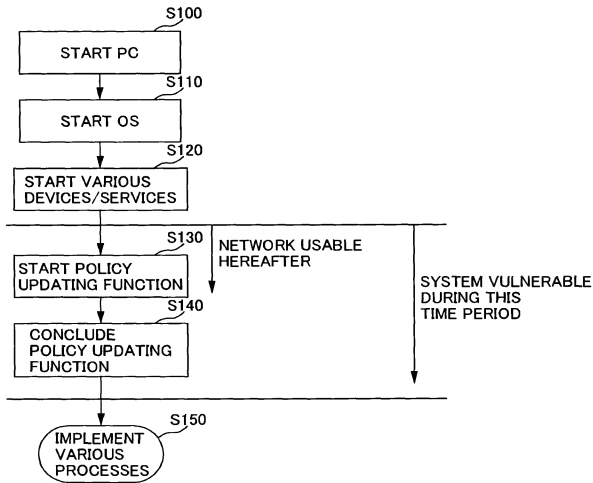**Atty Docket No.** 16869K-092500US
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```
                    S100
        ┌─────────────────────┐
        │     START PC        │
        └─────────────────────┘
                  │    S110
        ┌─────────────────────┐
        │     START OS        │
        └─────────────────────┘
                  │    S120
        ┌─────────────────────┐
        │  START VARIOUS      │
        │  DEVICES/SERVICES   │
        └─────────────────────┘
                  │    S130   NETWORK USABLE
        ┌─────────────────────┐  HEREAFTER
        │  START POLICY       │
        │  UPDATING FUNCTION  │      SYSTEM VULNERABLE
        └─────────────────────┘      DURING THIS
                  │    S140           TIME PERIOD
        ┌─────────────────────┐
        │  CONCLUDE           │
        │  POLICY UPDATING    │
        │  FUNCTION           │
        └─────────────────────┘
                  │    S150
             ╭──────────╮
            (  IMPLEMENT  )
            (  VARIOUS    )
             ╲ PROCESSES ╱
              ╰──────────╯
```

FIG. 9